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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,873	03/30/2004	Kazuaki Hamamoto	12-043	3246
23400	7590	05/13/2005	EXAMINER	
POSZ LAW GROUP, PLC 12040 SOUTH LAKES DRIVE SUITE 101 RESTON, VA 20191			TANINGCO, MARCUS H	
			ART UNIT	PAPER NUMBER
			2878	

DATE MAILED: 05/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/811,873	<b>Applicant(s)</b> HAMAMOTO, KAZUAKI 	
	<b>Examiner</b> Marcus H. Tanningco	<b>Art Unit</b> 2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/30/04 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/30/04</u> . | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### **Claim Rejections - 35 USC § 112**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 4, and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites the limitation "said mounting surface" in line 6. There is insufficient antecedent basis for this limitation in the claim.

Claims 4 and 6 are rejected based on their dependencies on a rejected claim.

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. (US 5,056,929) in view of Koehler (US 3,596,096).

Re claims 1, 3, and 4, Watanabe et al. discloses an infrared sensor (Fig. 3) comprising: a substrate **10** having a thick part and a thin part wherein a film **11** constitutes the thin part of said substrate, and a detector **15** provided on a top surface of said substrate; a bottom surface of the

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thick part of said substrate joined with a mounting surface **22a** for mounting said sensor.

Watanabe et al. fails to specify an adhesive consisting of a low heat conductive material. Koehler teaches an infrared detector wherein the infrared sensor **1** is mounted with silicon adhesive (Col 2, 3-9). It would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Watanabe et al. with the adhesive taught by Koehler in order to regulate the temperature of the sensor.

Re claim 2, Watanabe et al. discloses an infrared sensor (Fig. 3) comprising: a substrate **10** having a film **11** that constitutes the thin part of said substrate, and a detector **15** provided on a top surface of said substrate; a bottom surface of the thick part of said substrate joined with a mounting surface **22a** for mounting said sensor. Watanabe et al. fails to specify an adhesive having a heat conductivity of not more than 0.18 W/mK. Koehler teaches an infrared detector wherein the infrared sensor **1** is mounted with silicon adhesive (Col 2, 3-9) wherein it is generally known in the art that silicon as a heat insulator has heat conductivity of 0.20 or less. It would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Watanabe et al. with the adhesive taught by Koehler in order to regulate the temperature of the sensor.

Re claims 5 and 6, Watanabe et al. discloses the claimed invention comprising a thermopile **1** providing hot contacts **14a** on said membrane **11** and an infrared ray absorption film **15** formed on said membrane **11** so as to cover said hot contact part **14a** (Fig. 1 and 5).

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### **Conclusion**


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sakamoto et al. (JP 03-196583) discloses a vertical type silicon thermopile and manufacture thereof. Turnbull (US 5,099,120) discloses a thermal-radiation detector. Hirota (JP 08-88411) discloses an infrared sensor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus H. Taningco whose telephone number is (571) 272-1848. The examiner can normally be reached on M - F 8:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MT

  
DAVID PORTA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800